Paper No. 48

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte WERNER FRIES, KARL-WILHEIM KLEMM,
ARNOLD DOBBELSTEIN and WERNER SOBITZKAT

Appeal No. 1997-3643
Application 08/484,047

ON BRIEF

Before PAK, KRATZ and TIERNEY, Administrative Patent Judges.

TIERNEY, Administrative Patent Judge.

Decision on Appeal

This is a decision on appeal from the examiner's final rejection of claims 1-14, which are all of the claims pending in this application.

We reverse the rejection of the examiner and enter a new ground of rejection pursuant to 37 CFR § 1.196(b) as to claims 6-14 under the second paragraph of 35 U.S.C. § 112.

The Invention

The appellant's invention relates to a printing ink containing a binder, a process for preparing a printing ink and a process for printing a substrate. (See claims 1, 6 and 11). A copy of the claims under appeal is set forth in the appendix to the appellant's brief. Claim 1 is illustrative of the invention and reads as follows:

1. A printing ink containing as a binder

A) a phenolic resin-modified rosin in a proportion of 60 to 90% by weight and

B) and alkyd resin in a proportion of 10 to 40% by weight, the sum of A) and B) giving 100% by weight and the alkyd resin having been prepared from

a) an unsaturated fatty acid having 6 to 20 carbon atoms or a mixture of such acids or their triglycerides;

b) a polyol, and

c) a dicarboxylic acid or anhydride thereof, said unsaturated fatty acid having an iodine number of from 120 to 190 (g of I_2/100g) and the alkyd resin having a hydroxyl number of from 40 to 260 (mg KOH/g) of resin and an acid number less than 11.

As with claim 1, we note that independent claims 6 and 11, while directed to processes for making a printing ink and a process for printing on a substrate, require an alkyd resin prepared from an

unsaturated fatty acid having an iodine number from 120 to 190 and an alkyd resin having a hydroxyl number from 40 to 260 and an acid number of less than 11.

The References

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Savageau *et al*. (Savageau)	3,772,171	Nov. 13, 1973
Uhlemayr *et al*. (Uhlemayr)	4,383,860	May 17, 1983

The Rejections

(1) Claims 1-14 stand rejected under 35 U.S.C. § 103 as being unpatentable over Savageau, U.S. Patent No. 3,772,171 in view of Uhlemayr, U.S. Patent No. 4,383,860.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellant regarding the above-noted rejection, we make reference to the answer (Paper No. 47, mailed December 11, 1996) for the examiner's complete reasoning in support of the rejection, and to the brief (Paper No. 46, filed August 12, 1996) for the appellant's arguments thereagainst.

Opinion

We have carefully considered all of the arguments advanced by appellants and the examiner and agree with appellants that the aforementioned rejections is not well founded. Accordingly, we

reverse the rejection.

As discussed in detail below, the prior art fails to teach or suggest appellants' claimed printing inks, processes for making printing inks and processes for printing on a substrate. As recognized by the examiner, appellants' independent claims require the employment of an alkyd resin prepared from an unsaturated fatty acid having an iodine number from 120 to 190 and that the alkyd resin has a hydroxyl number from 40 to 260 and an acid number of less than 11. Yet, the prior art relied upon by the examiner fails to teach or suggest preparing such an alkyd resin and combining it with a phenolic resin-modified rosin to form a binder for a printing ink. As the prior art fails to teach or suggest such an alkyd resin for a printing ink binder, the examiner has failed to establish that the references form a *prima facie* case of obviousness for the subject matter defined by the appealed claims.

The Prior Art

Savageau, U.S. Patent No. 3,772,171

Savageau relates to a novel quick setting ink containing photosensitizers. The quick-setting inks normally comprises a colorant and a vehicle containing an oil or oil-derived alkyd, a solvent and a resin. (Savageau, col. 1, lines 22-24). The oil or alkyd may be present in the composition in an amount ranging from 10 to 40 percent by weight and the resin may be present in an amount ranging from 10 to 60 percent by weight. (Savageau, col. 2, lines 20-28). The resins which may be used in quick setting

inks are normally selected from conventional resins including rosin-modified phenolic resins. (Savageau, col. 1, lines 55-63). Savageau exemplifies an alkyd resin which is formed from linseed oil, glycerine and isophthalic acid. (Savageau, example 1 and col. 4, lines 51-54).

Savageau does not explicitly state the iodine value of its unsaturated fatty acid or the acid number or hydroxyl number for its alkyd resin. The examiner states for the record, however, that the example of Savageau has a hydroxyl number:

> ... way to low based on a ratio of hydroxyl compound to acid compound. There is no motivation directly in it or in [the] Ink Manual incorporated therein to raise the hydroxyl number. (Examiner's answer, p. 5).

Uhlemayr, U.S. Patent No. 4,383,860

Uhlemayr discloses a paper printing ink composed of a pigment and an alkyd resin binder modified with a long-chain fatty acid. The alkyd resin is a non-drying resin modified with oils, fatty acids or fatty alcohols having an iodine number of less than 20. (Uhlemayr, abstract). Indeed, Uhlemayr specifically states that "the modifier should, in general, be largely free of multiple double bonds." (Uhlemayr, col. 3, lines 4-5). Uhlemayr describes the alkyd resin as having a hydroxyl number of greater than 10 and preferably greater than 15. In particular, alkyd resins having a hydroxyl number in the range of from about 20 to about 35 have proven especially valuable. Similarly, alkyd resins having an acid number of smaller than about 25 and especially one of about 6 to about 12 are particularly valuable. (Uhlemayr, col. 3, lines 16-25).

The Rejection over Savageau in view of Uhlemayr

Claims 1-14 are rejected by the examiner as being unpatentable over Savageau in view of Uhlemayr. According to the examiner, Savageau suggests a printing ink having a binder formed of the claimed proportions of a phenolic resin-modified rosin and an alkyd resin derived from an unsaturated fatty acid, a polyol and a dicarboxylic acid. The examiner contends that the iodine value and hydroxyl number of the linseed oil formed alkyd resin is inherent as these numbers are result oriented variables. Yet, the examiner goes on to state that:

> Moreover, the primary reference Savageau expressly teaches everything but the hydroxyl number and conversely the acid number ... as claimed. The example of Savageau has a hydroxyl number way to low based on a ratio of hydroxyl compound to acid compound. There is no motivation directly in it or in [the] Ink Manual incorporated therein to raise the hydroxyl number." (Examiner's answer, p. 5).

Furthermore, the examiner contends that such properties would have been obvious in view of Uhlemayr which describes a hydroxyl value of about 35.

At the outset, when relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art. *Ex parte Levy,* 17 USPQ2d 1461, 1464 (Bd. Patent App. & Int. 1990). Specifically, inherency may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a give set of circumstances is not sufficient. *In re Oelrich*, 666 F.2d 578, 581, 212 USPQ 323, 326, (CCPA

1981).

In the present appeal, the examiner has failed to establish that Savageau necessarily discloses an alkyd having a hydroxyl number from 40 to 260 and an acid number of less than 11 and that the alkyd resin was prepared from an unsaturated fatty acid having an iodine number from 120 to 190. Indeed, the examiner's comments indicate that one skilled in the art following the teachings of Savageau would not arrive at the claimed hydroxyl number of 40 to 260 nor would one skilled in the art be motivated to form such an alkyd. Accordingly, Savageau does not motivate one skilled in the art to form the claimed binder having an alkyd resin with a hydroxyl value of from 40 to 260.

As to the examiner's rejection of the claims under obviousness, to establish a *prima facie* case of obviousness, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970) ("All words in a claim must be considered in judging the patentability of that claim against the prior art."). Furthermore, the motivation to modify the prior art references must flow from some teaching in the art that suggests the desirability or incentive to make the modification needed to arrive at the claimed invention. *In re Napier*, 55 F.3d 610, 613, 34 USPQ2d 1782, 1784 (Fed Cir. 1995); *In re Gorman*, 933 F.2d 982, 986-87, 18 USPQ2d 1885, 1888-89, (Fed. Cir. 1991) ("When it is necessary to select elements of various teachings in order to form the claimed invention, we ascertain whether there is any suggestion or motivation in the prior art to make the selection made by the applicant. [Citations

omitted] ... The extent to which such suggestion must be explicit in, or may be fairly inferred from, the references, is decided on the facts of each case in the light of the prior art and its relationship to the aplicants' invention.").The examiner's combination of the teachings of Savageau in view of Uhlemayr is not

well founded as the references as combined fail to teach all the claimed limitations and furthermore, the references fail to suggest such limitations. Specifically, as described by the examiner, Savageau does not motivate one skilled in the art to form an alkyd having the requisite acid number and hydroxyl numbers. Likewise, there is no motivation provided to modify the unsaturated fatty acids of Uhlemayr to have the claimed iodine number. Moreover, there is no suggestion provided by the references to select only those unsaturated fatty acids, polyols and dicarboxylic acids of Savageau and Uhlemayr and react them together to achieve appellants' alkyd resin. Accordingly, the references fail to establish a *prima facie* case of obviousness.

NEW GROUND OF REJECTION

We enter a new ground of rejection against appellants' claims pursuant to 37 CFR § 1.196(b). Specifically, appealed claims 6-14 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the appellants regard as the invention.

The proper standard for definiteness under 35 U.S.C. § 112, second paragraph, is whether a claim reasonably apprises those of skill in the art of its scope. See *In re Warmerdam*, 33 F.3d 1354, 1361, 31 USPQ2d 1754, 1759 (Fed. Cir. 1994); *Amgen, Inc. v. Chugai Pharmaceutical Co., Ltd.*, 927 F.2d 1200, 1217, 18 USPQ2d 1016, 1030 (Fed. Cir. 1991). For the reasons provided below, we find that claims 6-14 contain or depend from claims which contain language which lead to confusion over the intended scope of the claimed subject matter.

Independent claim 6 recites the terminology "conventional constituents, *such as* Lubricants, thickeners and thixotropic agents." (See claim 6, emphasis added). Examples and preferences stated in claims lead to confusion as to whether the narrow range of components is a claim limitation. In this instance, the language "such as" renders the claim unclear as to whether the claim requires the presence of the lubricants, thickeners and thixotropic agents or any conventional consituents. Additionally, it is noted that the word "lubricants" should not be capitalized.

Independent claim 6 mentions that "if appropriate" further binders and further conventional constituents are dispersed in the binder. It is unclear how one skilled in the art is to determine whether or not the presence of the additional binders and conventional constituents is "appropriate." By failing to provide guidance as to how one determines the appropriateness of the additional components, appellants' have failed to properly set forth the metes and bounds of the claimed invention.

Independent claim 6 recites "a dispersing device, which comprises using unsaturated fatty acids

having an iodine number from 120 to 190." It appears that the words "which comprises" refers to the unsaturated fatty acids used to prepare the alkyd resin. As written, however, the literal language of the claim would have the dispersing device comprise unsaturated fatty acids having the recited iodine number. This slight ambiguity may be easily corrected.

Dependent claim 9 relates to a process which comprises using specific acids or "where they exist" their anhydrides. The term "where they exists" leads to confusion as it is unclear whether appellants are requiring their existence under certain unspecified conditions or if they could exist at all.

Dependent claim 10 is directed to "the use of printing inks as claimed in claim 1 for the sheet-fed offset printing process, without powdering the printed products." Attempts to claim a process without setting forth any steps involved in the process are indefinite as they merely recite a use without any active, positive steps delimiting how this use is actually practiced. *Ex parte Erlich*, 3 USPQ.2d 1011, 1017 (Bd. Pat. App. & Inter. 1986). Accordingly, claim 10 fails to set forth the metes and bounds of the subject matter to be protected by the patent grant.

Independent claim 11 recites "or their triglycerides, said component having an iodine number of 120 to 190." The term "said component" appears to refer either to the unsaturated fatty acid or the triglycerides or both, however, it is somewhat unclear since the term lacks antecedent basis. Additionally, the word "printing" as used in the phrase "printing ink binder" is misspelled.

Conclusion

REVERSED

1.196(b)

We have carefully considered all of the arguments advanced by appellants and the examiner and agree with appellants that the rejection under 35 U.S.C. § 103, is not well founded. Accordingly, we reverse this rejection. Yet, based upon a review of the claims, a new ground of rejection has been stated against the appealed claims under the second paragraph of 35 U.S.C. § 112.

This decision contains a new ground of rejection pursuant to 37 CFR § 1.196(b). 37 CFR § 1.196(b) provides that, "[a] new ground of rejection shall not be considered final for purposes of judicial review."

37 CFR § 1.196(b) also provides that the appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of proceedings (37 CFR § 1.197(c)) as to the rejected claims:

> (1) Submit an appropriate amendment of the claims so rejected or a showing of facts relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the application will be remanded to the examiner. . . .
>
> (2) Request that the application be reheard under § 1.197(b) by the Board of Patent Appeals and Interferences upon the same record. . . .

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

CHUNG K. PAK)
Administrative Patent Judge)
)

	)
	) BOARD OF PATENT
PETER F. KRATZ	)
Administrative Patent Judge	) APPEALS AND
	)
	) INTERFERENCES
	)
MICHAEL P. TIERNEY	)
Administrative Patent Judge	)

mpt/vsh

KENYON & KENYON
ONE BROADWAY
NEW YORK , NY 10004